

Power Choke Coil PCC-M1040L (MC) series



Small mounting size for multi-phase DC/DC converter circuits

Features

- Small type (11.5×10.0×H4.0 mm)
- High power (21 A to 28 A)
- Low loss (DCR : 0.7 to 1.56 mΩ)
- Tighter DCR tolerance ($\pm 5\%$ to $\pm 10\%$)
- Suitable for high frequency circuit (up to 1 MHz)
- Low buzz noise due to its gap-less structure
- Shielded construction
- RoHS compliant

Recommended applications

- Notebook and Desktop PC power supply modules
- Servers, Routers, DC/DC converters for driving CPUs

Standard packing quantity (Minimum quantity/Packing unit)

- 2,000 pcs/box(2 reel): ETQP4LR36WFC, ETQP4LR56WFC, ETQP4LR45XFC
- 1,000 pcs/box(2 reel): ETQP4LR19WFC

Explanation of part numbers

1	2	3	4	5	6	7	8	9	10	11	12
E	T	Q	P	4	L						

Product code

Classification

Size

Winding

Inductance

Core

Packaging

Suffix

Standard parts

Part No.	Inductance (at 20°C) ^{*1}					Rated current (A) ^{*2}	Rated current (reference) (A) ^{*3}	DC resistance (at 20°C) (mΩ)			
	L0 at 0A		L1		L2 ^{*4}						
	(μH)	(μH)	Measurement current (A)	(μH)	Measurement current (A)						
ETQP4LR19WFC	-0.2	0.19±20 %	21	-0.17	30	28	38	0.70±10 %			
ETQP4LR36WFC	-0.37	0.36±20 %	17	-0.34	24	24	33	1.10± 5 %			
ETQP4LR56WFC	-0.6	0.56±20 %	15	-0.53	21	21	28	1.56± 5 %			
ETQP4LR45XFC	0.45 +20 % -25 %	—	—	-0.38	25	25	33	1.10± 5 %			

*1: Inductance is measured at 1.0 MHz.

*2: Rated current defines actual value of DC current, when temperature rise of coil becomes 40 K. (Method A)

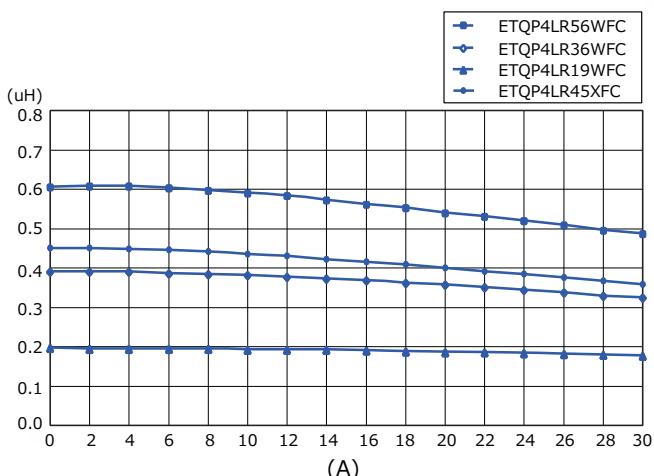
*3: Rated current (reference) defines actual value of DC current, when temperature rise of coil becomes 40 K. (Method B)

*4: Reference only

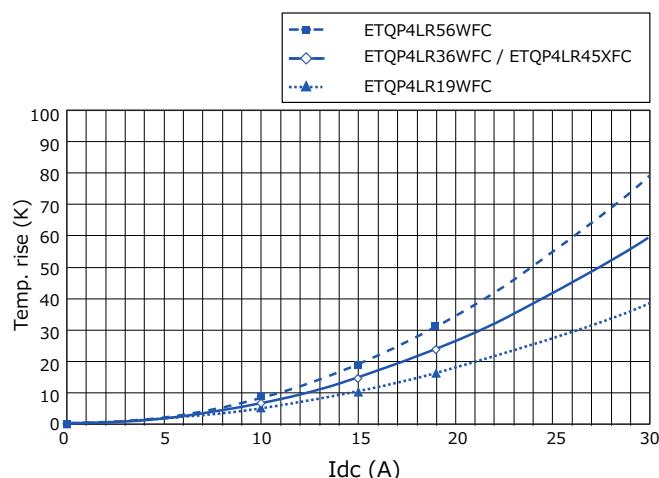
◆ Method A (PANASONIC's standard measurement conditions), Method B (high heat dissipation measurement) is different from Method A by the measurement methods. In normal application condition, the part's temperature depends on circuit design and heat dissipation condition. This condition shall be verified by the worst operational condition.

Performance characteristics (Reference)

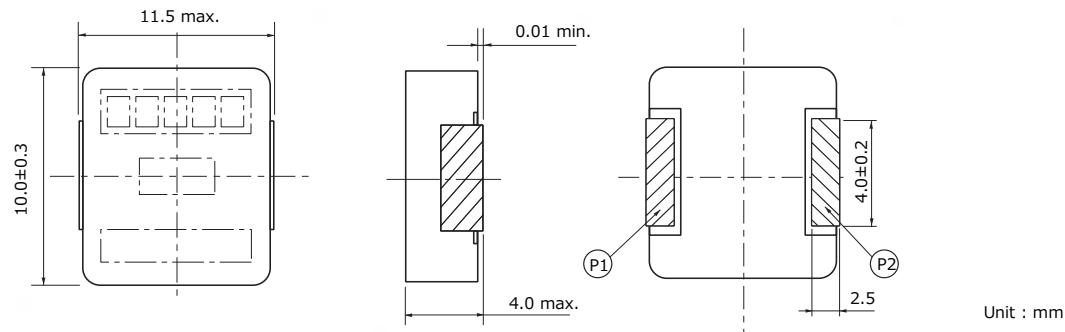
Inductance vs DC Current



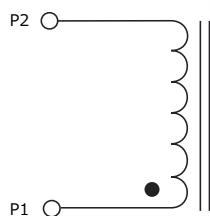
Case Temperature vs DC Current (Method A)



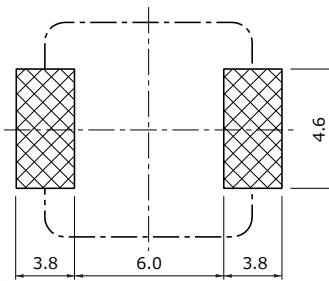
Dimensions in mm (not to scale)



Connection



Recommended land patterns in mm (not to scale)



- As for soldering conditions and safety precautions (Power choke coils for consumer use), please see data files.